

REMARKS

Reconsideration and allowance of this application are respectfully requested. Claims 1-7, 12, 14, 24, and 26 are cancelled. Claims 8-11, 13, 15-23, 25, and 27-31 remain in this application and, as amended herein, are submitted for the Examiner's reconsideration.

I. Rejection of claims 8-11, 13, 15-23, 25, and 27-31 under 35 U.S.C. § 102(e) as being anticipated by Walker.

In the Office Action, claims 8-11, 13, 15-23, 25, and 27-31 were rejected under 35 U.S.C. § 102(e) as being anticipated by Walker (U.S. Patent No. 7,342,973). Applicants submit that the claims are patentably distinguishable over the relied on sections of Walker.

A. The relied on sections of Walker are not concerned with "if a received field strength value at a transmission rate exceeds a threshold value" and are not concerned with "if a received field strength value at a transmission rate does not exceed a threshold value" as set forth in the claims.

In the Response to Arguments, the Office Action continues to assert that one of ordinary skill in the art would recognize that Walker discloses "if the received field strength value at the highest transmission rate exceeds the threshold value, initiating communication with the second wireless communication device using the unused channel of the selected frequency band as a communication channel at the highest transmission rate" and again relies on Figs. 1-2 and 9-11, column 7 lines 25-31, and column 8 lines 17-41 and 52-65 of Walker. However, M.P.E.P. § 2131 sets forth:

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art

reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed.Cir. 1987).

(Emphasis added.) The asserted features are not found, either expressly or inherently described, in the relied on sections of Walker.

For example, column 7 lines 25-31 and 45-51 of Walker merely describes:

As explained, a multi-band communication process utilizes one or more frequency bands to transfer data from transmitter to one or more receivers. Referring to FIG. 1, it may be useful to categorize each frequency band as being in use by the communication process, as being available, but not being used, or as being avoided because the band is subject to excessive interference. ...

FIG. 1 shows an example of the channel state (also referred to as the channel configuration 100), where frequency bands 1 and 3 are used by the communication process, while band 4 is available, but not used by the communication process. Band 2 has been determined to be impaired by excessive interference and is therefore avoided for communication purposes.

(Emphasis added.) Namely, frequency bands are avoided if the band is subject to or impaired by excessive interference. Such sections are not at all concerned with if a received field strength value at a transmission rate exceeds a threshold value, and such sections are not concerned with if a received field strength value at a transmission rate does not exceed a threshold value.

Moreover, column 8 lines 17-41 of Walker discloses:

At step 210, a determination is made as to whether there is interference present in one of the bands used by the communication process by determining if the intersection between the "used" set and the "interfered" set is non-empty (used*interfered≠{}). Several embodiment of the present invention are generally concerned with detecting interference in bands which are used during the current communication process, although a determination about interference in bands other than the

bands currently used is equally possible, for example, to determine an alternate set of frequency bands having less interference than the current set. Thus, in one embodiment, non-used but available bands (sub-bands) are monitored to determine if there is an interference in such bands.

At step 210, if interference is detected, execution continues at step 220. Otherwise, execution continues at step 280.

At step 220, the device determines whether the data throughput offered by the current set of used bands can be maintained by exchanging the bands in the "used" set, which are impaired by interference, with bands from the "available" set. If the level of throughput can be maintained, execution continues at step 230. Otherwise, execution continues at step 260.

At step 230, the device selects a set of bands from the "available" set in order to replace the set of interfered used bands. The new "used" set is the result of removing the "interfered" set from the current "used" set and adding the selected bands from the "available" set (new used = used - interfered + selected). The device determines, based on the new "used" set, a data coding scheme, and continues at step 240. An example of replacing an interfered band with an available band is illustrated in FIGS. 10-12.

(Emphasis added.) That is, the presence of interference is detected or determined, and if bands are impaired by interference, a determination is made as to whether data throughput can be maintained. The section is not concerned with carrying out any step if a received field strength value at a transmission rate exceeds a threshold value, and the section is not concerned with carrying out any step if a received field strength value at a transmission rate does not exceed a threshold value.

Further, column 8 line 52 - column 9 line 5 of Walker sets forth:

If, at step 220, the throughput cannot be sustained, a determination is made at step 260 as to whether the communication link could be maintained with a reduced

throughput. A reduced throughput is generally the result of reducing the number of bands used for communicating data by removing the bands containing interference. Various ways known in the art can be applied to make the determination as to whether the link can be maintained with reduced throughput. For example, the communication link can be attributed with upper and lower throughput requirements. The device can then compare a reduced throughput with the lower throughput requirement.

If the communication link can be maintained with a reduced throughput, the device proceeds at step 270.

At step 270, the new "used" set results from removing the "interfered" set from the "used" set (new used=used-interfered). Also at step 270, the device determines, based on the new "used" set, a data coding scheme. Execution then proceeds at step 240. An example of removing an interfered band without a suitable replacement band is illustrated in FIGS. 13-15.

(Emphasis added.) Specifically, a determination is made as to whether data throughput can be maintained, a determination is made as to whether data throughput can be maintained with a reduced throughput, and an interfered with band is removed. This section is not concerned with carrying out any step if a received field strength value at a transmission rate exceeds a threshold value, and this section is not concerned with carrying out any step if a received field strength value at a transmission rate does not exceed a threshold value.

Still further, column 9 lines 55-61 of Walker teaches:

Methods of detecting an interfering signal in one or more sub-bands of a multi-band UWB communication scheme are generally based upon maintaining statistics on symbol errors and using those statistics to determine the presence of an interference, or using circuitry in the receiver to detect the presence of excess signal energy in a given sub-band.

(Emphasis added.) Namely, this section merely describes detecting excess energy to determine the presence of an interference. The relied on section of Walker is not concerned with carrying out a

step if a received field strength value at a transmission rate does not exceed a threshold value.

Hence, the relied on sections of Walker neither disclose nor suggest:

determining, for a highest one of a plurality of transmission rates associated with the selected frequency band, whether a received field strength value exceeds a threshold value,

if the received field strength value at the highest transmission rate exceeds the threshold value, initiating communication with the second wireless communication device using the unused channel of the selected frequency band as a communication channel at the highest transmission rate,

if the received field strength value at the highest transmission rate does not exceed the threshold value, determining whether an immediately lower one of the plurality of transmission rates exceeds the threshold value,

if the received field strength value at the immediately lower transmission rate exceeds the threshold value, initiating communication with the second wireless communication device using the unused channel of the selected frequency band as a communication channel at the immediately lower transmission rate,

if the received field strength value at the immediately lower transmission rate does not exceed the threshold value,

(i) determining whether the received field strength value at a next lower one of the plurality of transmission rates exceeds the threshold value,

(ii) if the received field strength value at the next lower transmission rate exceeds the threshold value, initiating communication with the second wireless communication device using the unused channel of the selected frequency band as a communication channel at the next lower transmission rate,

(iii) if the received field strength value at the next lower transmission rate does not exceed the threshold value, repeating steps (i) through (iii) until the received field strength value at the next lower one of the plurality of transmission rates

exceeds the threshold value or until the next lower one of the plurality of transmission rates is a lowest acceptable transmission rate,

as recited in independent claim 8. (Emphasis added.)

It follows, for at least these reasons, that the relied on sections of Walker do not disclose or suggest the combination defined in claim 8 and therefore do not anticipate the claim.

Independent claim 20 calls for features similar to those set out in the above excerpt of claim 8 and therefore is patentably distinguishable over the relied on sections of Walker for at least the reasons.

Claims 9-11 depend from claim 8, and claims 21-24 depend from claim 20. Therefore, each of these claims is distinguishable over the relied on sections of Walker at least for the same reasons as its parent claim.

Independent claims 13, 17, 18, 25, 29, and 30 each call for features similar to those set out in the above excerpt of claim 8. Each of these claims is therefore distinguishable over the relied on sections of Walker for at least the reasons set out above regarding claim 8.

Claims 15-16 depend from claim 13, claim 19 depends from claim 18, claims 27-28 depend from claim 25, and claim 31 depends from claim 30. Therefore, each of these claims is distinguishable over the relied on sections of Walker at least for the same reasons as its parent claim.

B. The Office Action again ignores the absence of any support in the provisional applications filed February 20, 2002 and September 26, 2001 for the subject matter relied on in rejecting independent claims 13, 17, 18, 25, 29, and 30 so that such subject matter is not prior art.

M.P.E.P. § 706.02(f)(1) clearly sets forth:

Example 2: Reference Publication and Patent of 35 U.S.C. 111(a) Application with a Benefit Claim to a Prior U.S. Provisional or Nonprovisional Application.

For reference publications and patents of patent applications filed under 35 U.S.C. 111(a), the prior art dates under 35 U.S.C. 102(e) accorded to these references are the earliest effective U.S. filing dates. Thus, a publication and patent of a 35 U.S.C. 111(a) application, which claims benefit under 35 U.S.C. 119(e) to a prior U.S. provisional application or claims the benefit under 35 U.S.C. 120 of a prior nonprovisional application, would be accorded the earlier filing date as its prior art date under 35 U.S.C. 102(e), assuming the earlier-filed application has proper support for the subject matter as required by 35 U.S.C. 119(e) or 120.

(Emphasis added; see also 37 C.F.R. § 1.78(a)(4), and M.P.E.P. §§ 201.11 and 2136.03.) That is, if an application claims the benefit of a prior U.S. provisional application, subject matter set forth in the application is accorded the earlier filing date as its prior art date only if the earlier-filed application has proper support for that subject matter. Conversely, even if an application claims the benefit of a prior U.S. provisional application, if any subject matter in the application is not supported by the disclosure of the provisional application, that subject matter is not accorded the earlier filing date as its prior art date.

Nevertheless, the Office Action again relies on column 9 lines 12-24 of Walker in rejecting independent claims 13, 17, 18, 25, 29, and 30, and **the Office Action completely ignores that the subject matter set forth in this section of Walker is not supported in any of the earlier-filed applications** from which Walker claims benefit. Rather, the Office Action simply points out:

... Walker reference was filed 20 February 2003 which is before the filing date of 22 April 2003 for the national stage application of the instant application. Walker has priority to the dates of **20 February 2002 and**

26 September 2001 in which both dates are prior to the instant application priority claim of the Japanese application filed 23 April 2002. Therefore, as addressed above, the reference is hereby maintained. ...

(Emphasis in the original.) Namely, the Office Action merely indicates the date that U.S. Provisional Application Nos. 60/359,044, 60/359,045, 60/359,046, 60/359,064, 60/359,094, 60/359,095, and 60/359,147 were filed and the date that U.S. Provisional Application No. 60/326,093 was filed. **The Office Action ignores that none of the provisional applications filed on February 20, 2002 support the relied on subject matter, and the Office Action ignores that the provisional application filed on September 26, 2001 does not support the relied on subject matter.**

Hence, the prior art date of the subject matter disclosed in column 9 lines 12-24 of Walker is either February 20, 2003 (the filing date of the application from which Walker issued) or September 26, 2002 (the filing dates of U.S. Application Nos. 10/255,111 and 10/255,103 of which Walker is a continuation-in-part). By contrast, the present application is a national stage application under 35 U.S.C. § 371 of International Application No. PCT/JP03/05107, filed April 22, 2003, which claims priority from Japanese Application No. JP 2002-120518, filed April 23, 2002. (An English-language translation of Japanese Application No. JP 2002-120518 in which the translator, Masaaki Iwami, certified that the text comprises an accurate translation into English was filed with the March 4, 2009 Amendment.) Therefore, the priority date of the present application precedes the prior art date of the relied on section of Walker. The subject matter disclosed in column 9 lines 12-24 of Walker is not prior art.

If the Examiner disagrees that the relied on section of Walker is not prior art, **the Examiner is respectfully requested to indicate which of the provisional applications, and which section therein, supports the relied on subject matter.**

Accordingly, Applicants respectfully request the withdrawal of the rejections under 35 U.S.C. § 102(e).

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone applicants' attorney at (908) 654-5000 in order to overcome any additional objections which the Examiner might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

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